Catalogue of American Amphibians and Reptiles.

McCranie, James R. 1980. *Crotalus adamanteus.*

Crotalus adamanteus Beauvois
Eastern diamondback rattlesnake

Crotalus adamanteus Beauvois, 1799:368. Type-locality not specifically stated. Restricted to Charleston, South Carolina by Schmidt (1953). No holotype designated.

Crotalus rhombifer Latreille *in* Sonnini and Latreille, 1801:197. Type-locality not specified. Restricted to Gainesville, Florida by Schmidt (1953). No holotype designated.

Crotalus rhombiferus Brickell, 1805:164 (*nec* Latreille, 1801). Type-locality not stated, probably vicinity of Savannah, Georgia (Klauber, 1972). No holotype designated.

Crotalus adamanteus var. *adamanteus*: Jan, 1859:153.

Crotalus durissus: Boulenger, 1896:578.

Crotalus adamanteus pleistofloridensis Brattstrom, 1954:35. Type-locality, "Seminole, Pinellas County, Florida, Late Pleistocene." Holotype, Amer. Mus. Natur. Hist., Dept. Vert. Paleon. 6779, one mid-thoracic vertebra, no collector stated (not examined by author).

Crotalus giganteus Brattstrom, 1954:36. Type-locality, "'Allen Cave', Lecanto, Citrus County, Florida, Pleistocene." Holotype, Amer. Mus. Natur. Hist., Dept. Vert. Paleon. 6772, one vertebra, no collector stated (not examined by author).

• Content. The species is monotypic.

• Definition. *Crotalus adamanteus* is a large, heavy-bodied rattlesnake with an average adult total length of about 1375 mm to 1525 mm and a maximum length of approximately 2440 mm. The ground color of the dorsum is generally brownish with a pattern consisting of 24–35 black-edged brown diamonds, each bordered by a yellowish row of scales. The diamonds fade posteriad. The tail has cross bands of alternating black and brown or grey. The venter is yellowish to white, mottled with brown. A dark band extends obliquely from the eye to the labials, and is bordered on each side by a pale streak. The rostral is edged with yellow. A vertical yellow stripe on each side of the head in front of the nostril continues onto the first supralabials. Scutellation is as follows: 25–31 (usually 27 or 29) dorsal scale rows at midbody; 165–176 ventrals in males, 170–187 in females; 27–33 subcaudals in males, 20–26 in females; supralabials 12–17; infralabials 15–21.

• Descriptions. Stejneger (1895), Cope (1900), Gloyd (1940), Wright and Wright (1957), Carr and Goin (1959) and Mount (1975) described external morphology and coloration. Klauber (1972) provided tables on squamation and lengths and also described the hemipenis. Additional descriptions are of the: fibre tracts of the forebrain (Warner, 1946); diencephalon and the midbrain (Warner, 1947); anatomy of the infra-red sense organ (Bullock and Fox, 1957); nasal anatomy (Parsons, 1959); lateral jaw musculature (Kochva, 1962); precaudal vertebrae (Auffenberg, 1963); dentition and osteology (Brattstrom, 1964).

• Illustrations. Color illustrations are in Leviton (1972), Palmer (1974), Conant (1975) and Mount (1975). Illustrations of the side of the head showing the distinctive color pattern are in Stejneger (1895) and Klauber (1972). Kauffeld (1957) showed the species in its habitat. Ditmars (1933) and DaLie (1953) included illustrations of the skull. Murphy and Shadduck (1978) illustrated a bicephalic specimen. Klauber (1972) provided figures of the hemipenis. Holman (1959) included a drawing of the maxilla. Auffenberg (1963) included drawings of a precaudal vertebra (under the name *C. giganteus*). Brattstrom (1954) illustrated the thoracic vertebrae (under the names *C. a. pleistofloridensis* and *C. giganteus*), and (1964) provided line drawings of osteological characters.

• Distribution. *Crotalus adamanteus* occurs along the coastal plain from southeastern North Carolina southward throughout Florida and westward to extreme southeastern Louisiana. The species occurs on many coastal islands and throughout the Florida Keys. *Crotalus adamanteus* has been extirpated in many parts of its range due to habitat loss and human contact. The Louisiana population is now believed to be extinguished (Mount, 1976). The species was considered *endangered* in North Carolina (Palmer, 1977) and of *special concern* status in Alabama (Mount, 1976). *Crotalus adamanteus* is associated with relatively dry pine and wire grass flatwoods, longleaf pine–turkey oak hills, rosemary scrub, and palmetto flatwoods, and in south Florida is found also in mesophytic hammocks. Palmer et al. (1974) discussed erroneous locality records for North Carolina.

• Fossil Record. *Crotalus adamanteus* is known from the Pleistocene of Florida. Auffenberg (1963) reviewed the literature and added new localities. Klauber (1972) included a list of fossil localities and Holman (1978) cited additional records. Auffenberg (1963) and Christman (1975a) synonymized respectively *Crotalus a. pleistofloridensis* and *C. giganteus* with *C. adamanteus*.

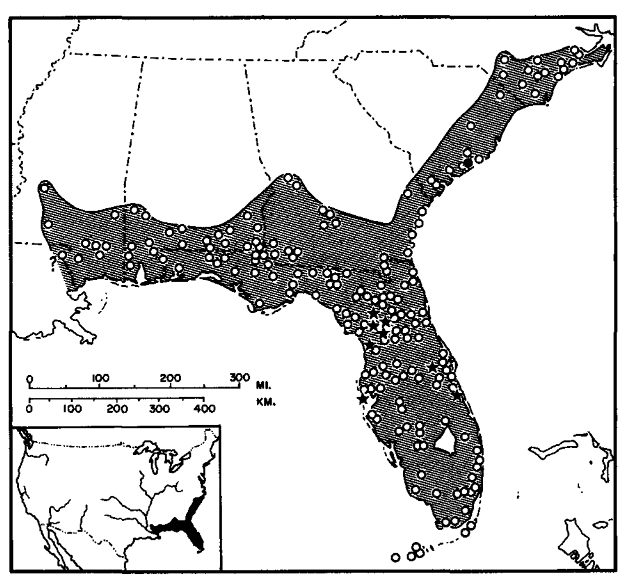
• Pertinent Literature. Klauber (1972) provided information on numerous aspects of the species and included many references. Ecological information is presented by Carr (1940), Kauffeld (1957), Mount (1975, 1976), Palmer (1974, 1977), and Wright and Wright (1957). Other works and their topics are: Neill (1961), size; Christman (1975b), geographic variation in Florida; Neill and Allen (1955), metachrosis; Hensley (1959), albinism; Shupe (1977), unusual coloration; Wagner (1962), combat dance; Murphy and Shadduck (1978), reproduction; Funderburgh (1968), carrion feeding; Neill (1958), occurrence in saltwater areas; Zimmerman and Pope (1948), development of the rattle; Prange and Christman (1976), allometrics of skeleton; Anthony (1955) and Edmund (1960), dentition; Brattstrom (1964), phylogeny, based on dentition and osteology; Foote and MacMahon (1977), phylogeny, based on venom; Devi (1971) and Tu (1977), venom with numerous references; Austin (1965), fine structure of spermatozoa; Bahl and Smith (1965), amino acid sequence of heart cytochrome *c*; Butner et al. (1965), histochemistry of "sexual segment" granules of male kidney; Cohen (1954), protein and albumin content of blood sera; Haselwood (1967), bile salts; Pollard and Young (1952), oils obtained from fat lobes; Spaur and Smith (1971), adrenal gland size in hatchlings; Kauffeld (1955) and Murphy and Armstrong (1978), diseases and infections.

• Etymology. The name *adamanteus* is Latin meaning "diamond or lozenge-shaped," referring to the shape of the dorsal body markings.

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Map. Solid circle marks the restricted type-locality, open circles indicate other localities, stars mark Pleistocene fossil sites.

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